SAFETY DATA SHEET

Based on Directive 2001/58/EC of the Commission of the European Communities

Soudaflex 25 LM

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:
Productname: Soudaflex 25 LM

1.2 Use of the substance or the preparation:
Sealant

1.3 Company/undertaking identification:
SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel. : +32 14 42 42 31
Fax : +32 14 44 39 71

1.4 Telephone number for emergency:
+32 14 58 45 45
Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)
Technische Schoolstraat 43 A, B-2440 Geel

2. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. in %	Hazard symbol	Risks (R-phrases)
xylene, mixture of isomers	1330-20-7 215-535-7	1 - <10	Xn	10-20/21-38 (1)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9 223-861-6	0.1 - <0.5	T;N	23-36/37/38-42/43-51/53 (1)
methylenediphenyl diisocyanate	26447-40-5 247-714-0	0.1 - <1	Xn	20-36/37/38-42/43 (1)
low boiling point naphtha, unspecified (conc. benzene < 0.1%)	64742-95-6 265-199-0	0.1 - <1	Xn;N	10-37-51/53-65-66-67 (1) (Labelling in compliance with CONCAWE)

(1) For R-phrases in full: see heading 16

3. Hazards identification

- Flammable
- May cause sensitisation by inhalation

4. First aid measures

4.1 Eye contact:
- Rinse immediately with plenty of water
- Seek medical advice

4.2 Skin contact:
- Rinse immediately with plenty of water
- If irritation persists: seek medical advice

4.3 After inhalation:
- Remove the victim into fresh air
- Seek medical advice

4.4 After ingestion:
- Never give water to an unconscious person
- Do not induce vomiting
- Seek medical advice

5. Fire-fighting measures

5.1 Suitable extinguishing media:
- Polyvalent foam
- ABC powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:
- None

5.3 Special exposure hazards:
- Gas/vapour spreads at floor level: ignition hazard
- Vapour-air mixture is flammable/explosive within the explosion limits
- On burning: release of toxic and corrosive gases/vapours: sulphur oxides, hydrogen chloride, carbon monoxide and carbon dioxide

5.4 Instructions:
- Cool closed containers with water if they are exposed to the fire
- Dilute toxic gases with water spray
- Take account of environmentally hazardous firefighting water

5.5 Special protective equipment for firefighters:
- Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal protection/precautions:
See headings 8.2/13

6.2 Environmental precautions:
- Use appropriate containment to avoid environmental contamination

6.3 Methods of cleaning up:
- Take up liquid spill in non-combustible absorbent material e.g.: sand, earth, vermiculite
- Shovel absorbed substance in closing drums
- Carefully collect the spill/leftovers
- Take collected spill to manufacturer/competent authority
- Clean contaminated surfaces with an excess of water
- Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

- Observe very strict hygiene - avoid contact
- Use spark-/explosionproof appliances and lighting system
- Take precautions against electrostatic charges
- Do not discharge the waste into the drain

7.2 Storage:

- Keep container tightly closed
- Keep out of direct sunlight
- Store in a dry area

- Keep away from: heat sources, ignition sources

Storage temperature	:Room temperature	
Quantity limit	: N.D.	**kg**
Storage life	: N.D.	**days**
Materials for packaging	:	
- suitable	: aluminium	

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure controls/Personal protection

8.1 Exposure limit values:

XYLENE, mixture of isomers:

TLV-TWA	:		**mg/m³**	100	**ppm**
TLV-STEL	:		**mg/m³**	150	**ppm**
TLV-Ceiling	:		**mg/m³**		**ppm**
WEL-LTEL	:	220	**mg/m³**	50	**ppm**
WEL-STEL	:	441	**mg/m³**	100	**ppm**
MAK	:	440	**mg/m³**	100	**ppm**
MAC-TGG 8 h	:	210	**mg/m³**		
MAC-TGG 15 min.	:	422	**mg/m³**		
MAC-Ceiling	:		**mg/m³**		
VME-8 h	:	221	**mg/m³**	50	**ppm**
VLE-15 min.	:	442	**mg/m³**	100	**ppm**
GWBB-8 h	:	221	**mg/m³**	50	**ppm**
GWK-15 min.	:	442	**mg/m³**	100	**ppm**
Momentary value	:		**mg/m³**		**ppm**
EC	:	221	**mg/m³**	50	**ppm**
EC-STEL	:	442	**mg/m³**	100	**ppm**

3-ISOCYANATOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYL ISOCYANATE:

TLV-TWA	:	**mg/m³**	0.005	**ppm**
TLV-STEL	:	**mg/m³**		**ppm**
TLV-Ceiling	:	**mg/m³**		**ppm**
WEL-LTEL	: 0.02(-NCO)	**mg/m³**		**ppm**
WEL-STEL	: 0.07(-NCO)	**mg/m³**		**ppm**
MAK	: 0.046	**mg/m³**	0.005	**ppm**
MAC-TGG 8 h	: 0.05	**mg/m³**		
MAC-TGG 15 min.	: 0.19	**mg/m³**		
MAC-Ceiling	:	**mg/m³**		
VME-8 h	: 0.09	**mg/m³**	0.01	**ppm**
VLE-15 min.	: 0.18(5 min)	**mg/m³**	0.02(5 min)	**ppm**
GWBB-8 h	: 0.046	**mg/m³**		**ppm**
GWK-15 min.	:	**mg/m³**		**ppm**
Momentary value	:	**mg/m³**		**ppm**
EC	:	**mg/m³**		**ppm**
EC-STEL	:	**mg/m³**		**ppm**

8.2 Exposure controls:

8.2.1 Occupational exposure controls:
- Use only in well ventilated area

8.2.1.1 Respiratory protection:
- In case of insufficient ventilation: respiratory protection with filtertype A

8.2.1.2 Hand protection:
- Chemically resistant gloves

8.2.1.3 Eye protection:
- Safety glasses

8.2.1.4 Skin protection:
- Suitable protective clothing

8.2.2 Environmental exposure controls: see heading 13

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C)	: Viscous	
Odour	: Solvent	
Colour	: Variable in colour	

9.2 Important health, safety and environmental information:

pH value	: N.D.	
Boiling point/boiling range	: N.D.	**°C**
Flashpoint	: 25	**°C**
Explosion limits	: N.D.	**vol%**
Vapour pressure (at 20°C)	: N.D.	**hPa**
Vapour pressure (at 50°C)	: N.D.	**hPa**
Relative density (at 20°C)	: 1.2	
Water solubility	: Insoluble	
Soluble in	: No data available	
Relative vapour density	: > 1	
Viscosity	: N.D.	**Pa.s**
Flow time (ISO 2431)	: > 60	**s**
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
ratio to butyl acetate	: N.D.	
ratio to ether	: N.D.	

9.3 Other information:

Melting point/melting range	: N.D.	**°C**
Auto-ignition point	: N.D.	**°C**
Saturation concentration	: N.D.	**g/m^3**

10. Stability and reactivity

10.1 Conditions to avoid/reactivity:

- Stable under normal conditions

10.2 Materials to avoid:

- Keep away from: heat sources, ignition sources

10.3 Hazardous decomposition products:

- On burning: release of toxic and corrosive gases/vapours: sulphur oxides, hydrogen chloride, carbon monoxide and carbon dioxide

11. Toxicological information

11.1 Acute toxicity:

XYLENE, mixture of isomers:

LD50 oral rat	:	> 4300	**mg/kg**
LD50 dermal rabbit	:	> 2000	**mg/kg**
LD50 dermal rabbit	:	> 1700	**mg/kg**
LC50 inhalation rat	:	22	**mg/l/4 h**
LC50 inhalation rat	:	5000	**ppm/4 h**

3-ISOCYANATOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYL ISOCYANATE:

LD50 oral rat	:	> 2500	**mg/kg**
LD50 dermal rabbit	:	N.D.	**mg/kg**
LD50 dermal rabbit	:	N.D.	**mg/kg**
LC50 inhalation rat	:	0.123	**mg/l/4 h**
LC50 inhalation rat	:	N.D.	**ppm/4 h**

11.2 Chronic toxicity:

XYLENE, mixture of isomers:

EC carc. cat.	:	not listed
EC muta. cat.	:	not listed
EC repr. cat.	:	not listed
Carcinogenicity (TLV)	:	A4
Carcinogenicity (MAC)	:	not listed
Carcinogenicity (VME)	:	not listed
Carcinogenicity (GWBB)	:	not listed
Carcinogenicity (MAK)	:	not listed
Mutagenicity (MAK)	:	not listed
Teratogenicity (MAK)	:	D
IARC classification	:	3

11.3 Routes of exposure: ingestion, inhalation, eye and skin

11.4 Acute effects/symptoms:

AFTER INHALATION:
ON CONTINUOUS EXPOSURE/CONTACT:
- Headache
- Nausea
- Dizziness
- Narcosis

AFTER INGESTION:
AFTER ABSORPTION OF HIGH QUANTITIES:
- Symptoms similar to those listed under inhalation

11.5 Chronic effects:
- May cause sensitization by inhalation
- Not listed in carcinogenicity class (IARC,EC,TLV,MAK)
- Not listed in mutagenicity class (EC,MAK)
- Not classified as toxic to reproduction (EC)

ON CONTINUOUS EXPOSURE/CONTACT:
- Respiratory difficulties

12. Ecological information

12.1 Ecotoxicity:

XYLENE, mixture of isomers:

- LC50 (96 h) : 3.77 mg/l (SALMO GAIRDNERI/ ONCORHYNCHUS MYKISS)
- EC50 (48 h) : 7.4 mg/l (DAPHNIA MAGNA)
- EC50 (72 h) : 10 mg/l (SKELETONEMA COSTATUM)

12.2 Mobility:

- **Volatile organic compounds (VOC):** 6%
- Insoluble in water

For other physicochemical properties see heading 9

12.3 Persistence and degradability:

- **biodegradation BOD_5** : N.D. **% ThOD**
- **water** : No data available
- **soil** : **T ½:** N.D. **days**

12.4 Bioaccumulative potential:

- **log P_{ow}** : N.D.
- **BCF** : N.D.

12.5 Other adverse effects:

- **WGK** : 2 (classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- **Effect on the ozone layer** : Not dangerous for the ozone layer (1999/45/EC)
- **Greenhouse effect** : No data available
- **Effect on waste water purification** : No data available

13. Disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 09* (waste adhesives and sealants containing organic solvents or other dangerous substances)
- Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Recycle/reuse

13.3 Packaging:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10* (packaging containing residues of or contaminated by dangerous substances)

14. Transport information

14.1 Classification of the substance in compliance with UN Recommendations

UN number	:	1993
CLASS	:	NOT SUBJECT
SUB RISKS	:	-
PACKING	:	-
PROPER SHIPPING NAME	:	

UN 1993, Flammable liquid, n.o.s. (xylenes)

14.2 ADR (transport by road)

CLASS	:	NOT SUBJECT
PACKING	:	-
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	-
DANGER LABEL PACKAGES	:	-

14.3 RID (transport by rail)

CLASS	:	NOT SUBJECT
PACKING	:	-
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	-
DANGER LABEL PACKAGES	:	-

14.4 ADNR (transport by inland waterways)

CLASS	:	NOT SUBJECT
PACKING	:	-
CLASSIFICATION CODE	:	
DANGER LABEL TANKS	:	-
DANGER LABEL PACKAGES	:	-

14.5 IMDG (maritime transport)

CLASS	:	3
SUB RISKS	:	-
PACKING	:	III
MFAG	:	-
EMS	:	F-E,S-E
MARINE POLLUTANT	:	-

14.6 ICAO (air transport)

CLASS	:	3
SUB RISKS	:	-
PACKING	:	III
PACKING INSTRUCTIONS PASSENGER AIRCRAFT	:	309/Y309
PACKING INSTRUCTIONS CARGO AIRCRAFT	:	310

14.7 Special precautions in connection with transport :

Viscous liquid with a flash point ranging from 23°C to 60°C, which meets the conditions indicated in 2.2.3.1.5 of ADR, RID and ADNR and in 2.3.2.5 of IMDG not subject to ADR, RID and ADNR and neither to IMDG Code chapters 4.1, 5.2, 6.1

SOUDAL

15. Regulatory information

Labelling in accordance with directives 67/548/EEC and 1999/45/EC

Harmful

Contains	:	methylenediphenyl diisocyanate
R10	:	Flammable
R42	:	May cause sensitisation by inhalation
S(02)	:	(Keep out of reach of children)
S23	:	Do not breathe vapour
S45	:	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S(63)		(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

Contains isocyanates. See information supplied by the manufacturer.

Contains 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.

SOUPAT

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
(*) = INTERNAL CLASSIFICATION (NFPA)

Exposure limits:

TLV : Threshold Limit Value - ACGIH USA
OES : Occupational Exposure Standards - United Kingdom
MEL : Maximum Exposure Limits - United Kingdom
MAK : Maximale Arbeitsplatzkonzentrationen - Germany
TRK : Technische Richtkonzentrationen - Germany
MAC : Maximale aanvaarde concentratie - the Netherlands
VME : Valeurs limites de Moyenne d'Exposition - France
VLE : Valeurs limites d'Exposition à court terme - France
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium
GWK : Grenswaarde kortstondige blootstelling - Belgium
EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T** : Total dust = **E** : Einatembarer Aerosolanteil
R : Respirable fraction = **A** : Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

a:	aerosol		**r:**	rook/Rauch	(fume)
d:	damp	(vapour)	**st:**	stof/Staub	(dust)
du:	dust		**ve:**	vezel	(fibre)
fa:	Faser	(fibre)	**va:**	vapour	
fi:	fibre		**om:**	oil mist	
fu:	fume		**on:**	olienevel/Ölnebel	(oil mist)
p:	poussière	(dust)	**part:**	particles	

Chronic toxicity:

K : List of the carcinogenic substances and processes - the Netherlands

Full text of any R-phrases referred to under heading 2:

R10 : Flammable
R11 : Highly flammable
R20 : Harmful by inhalation
R20/21 : Harmful by inhalation and in contact with skin
R23 : Toxic by inhalation
R36/37/38 : Irritating to eyes, respiratory system and skin
R37 : Irritating to respiratory system
R38 : Irritating to skin
R42/43 : May cause sensitization by inhalation en skin contact
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65 : Harmful: may cause lung damage if swallowed
R66 : Repeated exposure may cause skin dryness or cracking
R67 : Vapours may cause drowsiness and dizziness